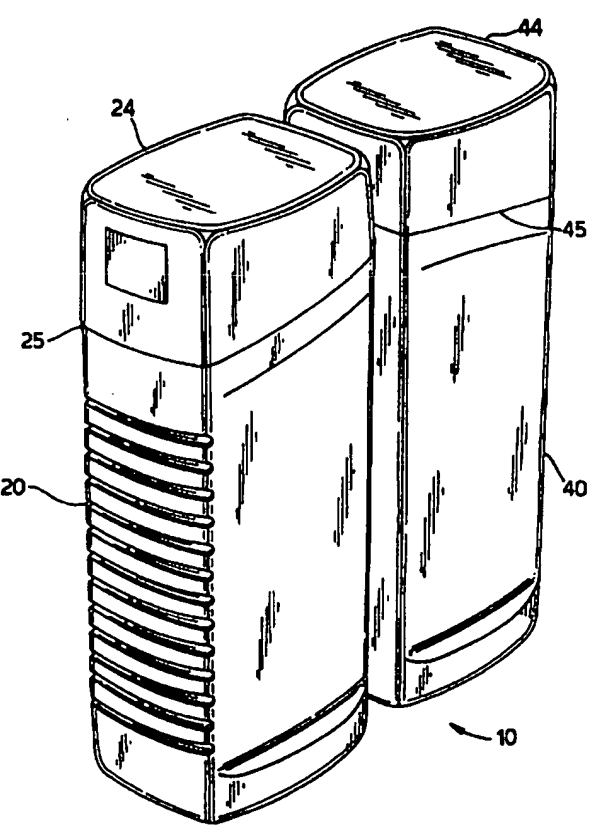


PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>6</sup> : <b>B65D 1/04, 69/00</b></p>	<p><b>A1</b></p>	<p>(11) International Publication Number: <b>WO 96/12648</b> (43) International Publication Date: <b>2 May 1996 (02.05.96)</b></p>
<p>(21) International Application Number: <b>PCT/GB95/02472</b> (22) International Filing Date: <b>19 October 1995 (19.10.95)</b> (30) Priority Data: <b>9421121.6</b> <b>19 October 1994 (19.10.94)</b> <b>GB</b> (71) Applicant (for AU BB CA GB IE KE LK MG MW NZ SD SG SZ TT UG only): <b>UNILEVER PLC [GB/GB]; Unilever House, Blackfriars, London EC4P 4BQ (GB).</b> (71) Applicant (for all designated States except AU BB CA GB IE KE LK MG MW NZ SD SG SZ TT UG): <b>UNILEVER N.V. [NL/NL]; Weena 455, NL-3013 AL Rotterdam (NL).</b> (72) Inventor: <b>BLAIR, Graham, John; 4 Huntington Close, Moreton, Wirral, Merseyside L46 6HU (GB).</b> (74) Agents: <b>HAMILTON, Alistair et al.; Mewburn Ellis, York House, 23 Kingsway, London WC2B 6HP (GB).</b></p>		<p>(81) Designated States: <b>AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ, UG).</b>  <b>Published</b> <i>With international search report.</i></p>
<p>(54) Title: <b>LAUNDRY PRODUCT PACK</b> (57) Abstract <p>A laundry product pack (10) is disclosed which comprises two or more product compartments (20, 40) isolated from one another. A different laundry product (22, 42) is stored in each compartment (20, 40). Each compartment (20, 40) is provided with a respective closure cap (24, 44) associated with each of which is a dispensing means (26, 46) whereby each compartment (20, 40) can be opened independently from the or each other, so allowing the product (22, 42) to be dispensed therefrom.</p></p>  <p>The diagram illustrates a laundry product pack (10) consisting of two adjacent compartments, 20 and 40. Each compartment is a rectangular container with a front panel featuring horizontal ridges. Compartment 20 has a closure cap 24 on its top surface, and compartment 40 has a closure cap 44. A dispensing means 26 is located on the front panel of compartment 20, and a dispensing means 46 is located on the front panel of compartment 40. The entire assembly is labeled 10.</p>		

BEST AVAILABLE COPY

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT	Austria	GB	United Kingdom	MR	Mauritania
AU	Australia	GE	Georgia	MW	Malawi
BB	Barbados	GN	Guinea	NE	Niger
BE	Belgium	GR	Greece	NL	Netherlands
BF	Burkina Faso	HU	Hungary	NO	Norway
BG	Bulgaria	IE	Ireland	NZ	New Zealand
BJ	Benin	IT	Italy	PL	Poland
BR	Brazil	JP	Japan	PT	Portugal
BY	Belarus	KE	Kenya	RO	Romania
CA	Canada	KG	Kyrgyzstan	RU	Russian Federation
CF	Central African Republic	KP	Democratic People's Republic of Korea	SD	Sudan
CG	Congo	KR	Republic of Korea	SE	Sweden
CH	Switzerland	KZ	Kazakhstan	SI	Slovenia
CI	Côte d'Ivoire	LJ	Liechtenstein	SK	Slovakia
CM	Cameroon	LK	Sri Lanka	SN	Senegal
CN	China	LU	Luxembourg	TD	Chad
CS	Czechoslovakia	LV	Latvia	TG	Togo
CZ	Czech Republic	MC	Monaco	TJ	Tajikistan
DE	Germany	MD	Republic of Moldova	TT	Trinidad and Tobago
DK	Denmark	MG	Madagascar	UA	Ukraine
ES	Spain	ML	Mali	US	United States of America
FI	Finland	MN	Mongolia	UZ	Uzbekistan
FR	France			VN	Viet Nam
GA	Gabon				

LAUNDRY PRODUCT PACK

This invention relates to a pack for laundry or other washing products, and more particularly to a unitary pack for providing a plurality of different such laundry, especially detergent, products for selective use by a consumer.

In recent years, developments in the art of detergents and other cleaning products have resulted in the availability of a variety of different types of such products, either in the form of powders or liquids, which have properties and are formulated so as to be suitable for a particular washing applications, such as for example the washing of particular types of fabric. For instance, a now common feature of some modern detergents is that they are specially designed for washing highly coloured fabrics with little or reduced tendencies of colours to fade upon repeated washing. Certain other modern detergents are designed to be particularly suited for cleaning fabrics in low temperature washing regimes, and/or for cleaning typically white or strongly colourfast fabric substrates with a high bleaching action.

Up to now in the art of detergent and other laundry product packaging, packs of varying volume sizes, such as containers, bottles, sachets and cartons, contain a single product, the simple principle being that the consumer purchases a single pack according to the selected choice of detergent or other product he/she wishes to buy and use.

Currently therefore, if consumers wish to take advantage, in different washing applications, of the different properties of these various application-specific products that are available, then they must purchase more

than one pack. Not only does this incur, or be seen by the consumer as incurring, increased cost, but it also means that the consumer is faced with at least perceived, or maybe actual, inconvenience of yet another item of purchase which  
5 has to be transported and stored. Furthermore, in modern times the typical brand consumer tends to purchase only a single given brand or type of laundry product on a regular basis, as a result of habit and/or brand loyalty, which is particularly prevalent in the field of detergent products.

10 Indeed, consumers of limited ranges of brands and/or types of detergent or other laundry products may be unaware of other such products that are available, or at least ignorant of the benefits that such other products can offer. This makes it difficult for manufacturers to introduce new  
15 products successfully or to balance sales of lesser known or lesser used products against other perhaps better established, brands or product types.

There is therefore a need for a means of redressing the above problems, especially by way of a specially designed  
20 type of package which on the one hand enables consumers to take advantage of or to be educated as to the benefits associated with various different laundry products, especially detergents which are available on a given supermarket shelf for example, and on the other hand assists  
25 manufacturers and retailers to boost or otherwise control sales of particular desired products in accordance with the habits and tendencies of consumers to purchase other, different particular products.

Accordingly, in a first aspect, the present invention  
30 provides a unitary laundry product pack including a first compartment containing a first laundry product, and at least one other compartment isolated from the first compartment

and containing a or a respective different laundry product, wherein each compartment has means for dispensing therefrom the respective product contained therein.

In preferred embodiments of the invention, the pack  
5 takes the form of two or more (however many separate compartments there are desired to be) containers integrally joined together, such as by virtue of a common wall or portion of a wall, or by means of a uniting web or other structural element linking the separate containers together  
10 to form a unitary pack.

Particularly preferred is a unitary pack comprising two separate containers, each one being of a shape and form similar to a conventional laundry product container, which are joined together along corresponding side walls thereof  
15 by a web of the material from which the containers themselves are formed.

Very desirable is that the unitary web is dimensioned and sufficiently strong and rigid such that it substantially avoids bending and the risk of being manually torn, whereby  
20 the web joining the compartments of the pack maintains it substantially rigid and creates a substantially permanent join between the individual compartments of the pack.

According to the invention, any desired laundry product types may be contained in the individual  
25 compartments of the pack. A typical example is, in a preferred embodiment, a different solid detergent powder in each compartment of a two-compartment unitary pack. By way of example, one powder may be designed especially for use on highly coloured (or non-colourfast) fabrics, while the  
30 other powder is designed for outstanding bleaching performance of eg. white or non-coloured fabrics at low

washing temperatures.

Combinations of other solid detergent products, or combinations of liquid detergent products, or even combinations of liquid and solid products are also possible, as are combinations of detergents with other laundry products, eg. fabric conditioners, stiffening/starching products, and such-like. Examples of all the above product types are well known commercially.

In preferred embodiments of the invention, the dispensing means with which each compartment is provided comprises a mouth having closure means associated therewith, for example a screw cap, a hinged flap closure, a stopper closure or any other suitable closure means known in the art.

Most preferably, the closure means of each compartment comprises a hinged flap which at the same time as being opened forms a pouring spout via which product from the compartment can be selectively delivered for instance into a dosing shuttle or directly into a washing machine dispenser device.

To enable product to be dispensed from each compartment individually and with ease, especially by tipping or pouring, it is preferable that the closure/dispensing means of each compartment is provided at an upper region thereof at a location remote from the or each other neighbouring compartment.

It is desirable for the compartments of the unitary pack of the invention to be refillable with the respective laundry products, as is the trend nowadays in the context of single-compartment detergent packs. Accordingly, in

preferred embodiments of the invention the compartments of the pack may each comprise a removable cap or lid which provides ready access to the compartment interior for refill purposes. Conveniently, the closure/dispensing means of each compartment may be carried by or be formed as an integral element of, the respective cap or lid.

The size and shape of the unitary pack of the invention, and particularly the volume of each compartment, may be selected as required or as desired in accordance with the type of product to be contained therein and/or the washing or other application for which the product is intended to be used. For instance, if all the products contained in the pack are to be used by the consumer generally at the same rate, eg. in the case of two different formulations of detergent powder such as one for coloured fabrics and one for whites, then the compartments may be of equal volumes. If, on the other hand, the products contained in the pack are to be used by the consumer at different rates, eg. in the case of a detergent product in combination with a fabric conditioner, then the volumes of the individual compartments may differ and may be selected according to the typical rates of use by volume of the respective products.

The pack of the invention may be formed of any suitable material as is known in the art of detergent packaging. Preferred is a plastics material, eg. high density polyethylene.

In preferred forms, the pack is formed by blow- or injection moulding, preferably in a single step, as a one piece moulding. Alternatively the pack may take the form of a collapsible multi-compartment bag or like article.

Optionally, the pack of the invention may be provided with a handle for ease of carrying and dispensing the products therefrom.

According to a second aspect of the present invention,  
5 there is proposed a method of providing a plurality of  
different laundry products for selective use by a consumer,  
the method comprising providing a unitary laundry product  
pack including a first compartment containing a first one  
10 of the said plurality of laundry products, and at least one  
other compartment isolated from the first compartment and  
containing a or a respective different one of said plurality  
of laundry products, wherein each compartment has means for  
dispensing therefrom the respective laundry product  
15 contained therein, whereby each said laundry product is  
selectively dispensable from its respective compartment via  
the respective dispensing means according to the needs or  
wishes of the consumer.

The present invention further provides, in a third  
aspect, a unitary pack for presenting to the consumer a  
20 plurality of different laundry products for his/her  
selective use, the packing including a first compartment for  
containing a first one of said laundry products, and at  
least one other compartment isolated from the first  
compartment and for containing a or a respective different  
25 one of said laundry products, wherein each compartment has  
means for dispensing therefrom a respective laundry product  
contained therein.

In a fourth aspect the invention provides a method of  
dispensing a selected one of a plurality of laundry products  
30 from a unitary laundry product pack according to the first  
aspect of the invention, the method comprising the steps of:



(i) selecting a particular one of said laundry products to be dispensed, and

(ii) dispensing said selected laundry product from its respective compartment via its respective dispensing means.

5           As used herein, the term "laundry product" is not to be construed as being strictly limited to products for use in washing or otherwise treating clothes. Any product used in cleaning or related treatments of any types of fabric, or even other substrates, for any purpose is intended to be  
10 encompassed by this term.

A preferred embodiment of the present invention will now be described in detail, by way of example only, with reference to the accompanying drawings, in which:

15           Figure 1 is a perspective view of the preferred unitary laundry product pack according to the invention;

Figure 2 is a front elevational view of the pack of Figure 1, showing a closure/dispensing device of one of the compartments in an open position; and

20           Figure 3 is a top view of the laundry pack of Figure 1.

Referring to Figures 1 and 2, a unitary pack for a plurality of different laundry products, referred to generally by the reference numeral 10, includes a first  
25 compartment 20 containing a first laundry product 22, and a second compartment 40 containing a second laundry product 42. The compartments 20, 40 are of equal volume, and are permanently and substantially rigidly joined together with a longitudinal connecting web 12.

The compartments 20, 40 are fitted with respective closure caps 24, 44 that can be removed to expose respective mouth openings 25, 45 for initial filling or re-filling of the compartments 20, 40 with their respective laundry products 22, 42 as and when desired.

Each of the closure caps 24, 44 is formed with a respective pouring spout 26, 46 to provide a means of dispensing the product from each respective compartment 20, 40. Each pouring spout 26, 46 is in the form of a hinged flap, preferably with a detent arrangement to maintain it in the closed condition to guard against unwanted egress or leakage of product from each compartment 20, 40.

The first and second compartments 20, 40 of the pack 10 and also the connecting web 12 are formed together as a one-piece blow-moulding from plastics material, eg. HDPE. Each closure cap 24, 44, together with its respective closure/dispensing means 26, 46, is also formed as a one-piece blow- or injection-moulding, preferably of the same material. The thickness of the connecting web 12 is selected such that the required degree of inflexibility thereof is inbuilt to give the pack the desired unitary, rigid single purchase item character.

By way of example, the first laundry product 22 in the first compartment 20 of the pack is a solid, particulate or granular detergent powder composed and formulated so as to be particularly suited to the washing of fabrics with strong colours, eg. the detergent powder sold by Unilever under the trade mark PERSIL COLOUR, whereas the second laundry product 42 in the second compartment 40 of the pack is a solid, particulate or granular detergent powder composed and formulated so as to be particularly suited to the washing of fabrics with a high bleaching action at low washing

temperatures, eg. the detergent powder sold by Unilever under the trade mark PERSIL POWER.

5 In accordance with the invention, therefore, the provision of these two different detergent powder products in separate compartments of a unitary pack purchasable and usable by the consumer as a single purchased item enables the consumer to be provided simply and conveniently with multiple products for use in different applications, as desired and as selectable by the consumer.

10 It is to be understood that the present invention has been described above by way of example only with reference to a specific exemplary preferred embodiment. Many variations and modifications from that which has been specifically described and illustrated are possible within  
15 the scope of the invention, as will be readily apparent to persons skilled in the art.

**CLAIMS: -**

1. A unitary laundry product pack (10) including a first compartment (20) containing a first laundry product (22), and at least one other compartment (40) isolated from the first compartment (20) and containing a or a respective different laundry product (42), wherein each compartment (20,40) has means (26,46) for dispensing therefrom the respective product (22,42) contained therein.  
5
2. A pack according to claim 1, wherein the said compartments (20,40) comprise two or more containers integrally joined together by virtue of a common wall or portion of a wall, or by means of a uniting web (12) or other structural element linking the separate containers (20,40) together to form the said unitary pack (10).  
10
3. A pack according to claim 2, wherein two said containers (20,40) are provided and joined by a uniting web (12) of material from which the said containers are formed, the said web (12) being dimensioned and sufficiently strong and rigid such that it substantially avoids bending and being manually torn.  
15  
20
4. A pack according to any preceding claim, wherein each compartment (20,40) of the pack (10) contains a different solid particulate or granular detergent powder product (22,42).
5. A pack according to any preceding claim, wherein the dispensing means (26,46) with which each compartment is provided comprises a mouth having closure means associated therewith.  
25
6. A pack according to claim 5, wherein the

closure/dispensing means (26,46) of each compartment is provided at an upper region thereof at a location remote from the or each other neighbouring compartment.

5 7. A pack according to any preceding claim, wherein each compartment (20,40) is of the same size and/or volume.

10 8. A method of providing a plurality of different laundry products (22,42) for selective use by a consumer, the method comprising providing a unitary laundry product pack (10) including a first compartment (20) containing a first one of the said plurality of laundry products, and at least one other compartment (40) isolated from the first compartment (20) and containing a or a respective different one of said plurality of laundry products, wherein each compartment has means (26,46) for dispensing therefrom the respective  
15 laundry product contained therein, whereby each said laundry product (22,42) is selectively dispensable from its respective compartment via the respective dispensing means according to the needs or wishes of the consumer.

20 9. A unitary pack for presenting to the consumer a plurality of different laundry products (22,42) for his/her selective use, the pack (10) including a first compartment (20) for containing a first one of said laundry products (22), and at least one other compartment (40) isolated from the first compartment (20) and for containing a or a  
25 respective different one of said laundry products, wherein each compartment (20,40) has means (26,46) for dispensing therefrom a respective laundry product contained therein.

30 10. A method of dispensing a selected one of a plurality of laundry products from a unitary laundry product pack according to any one of claims 1 to 7, the method comprising the steps of:-

- (i) selecting a particular one of said laundry products to be dispensed, and
- (ii) dispensing said selected laundry product from its respective compartment via its respective dispensing means.

1/2

Fig.1.

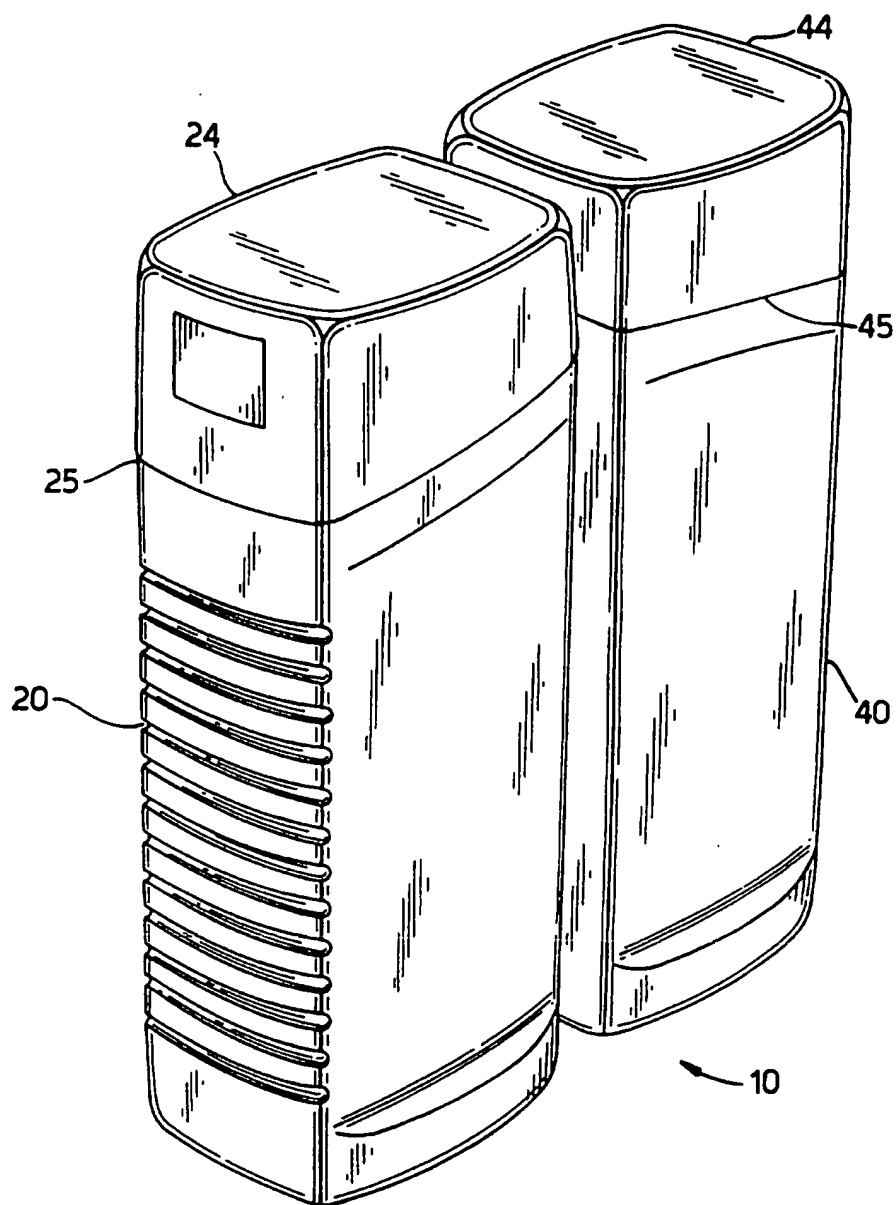


Fig.2.

2/2

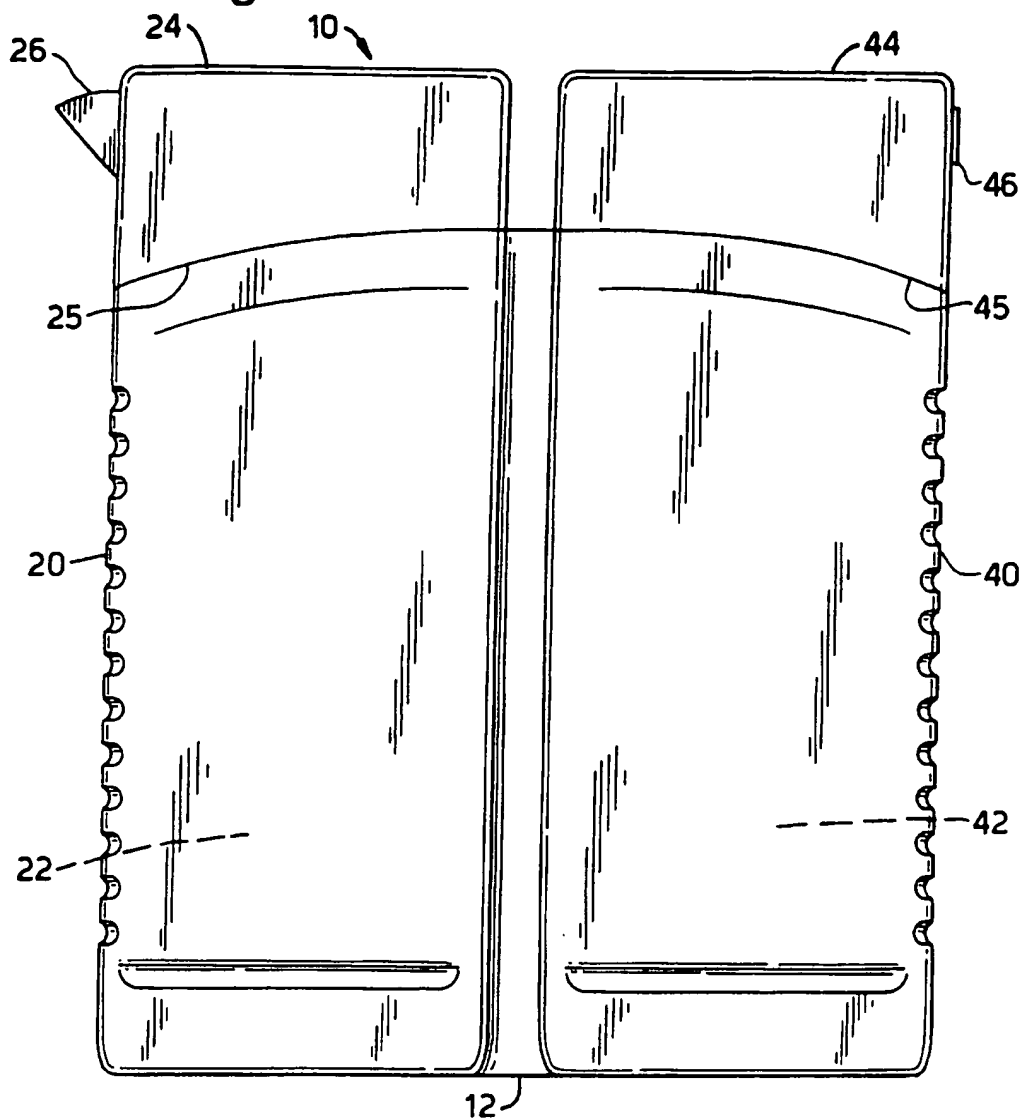
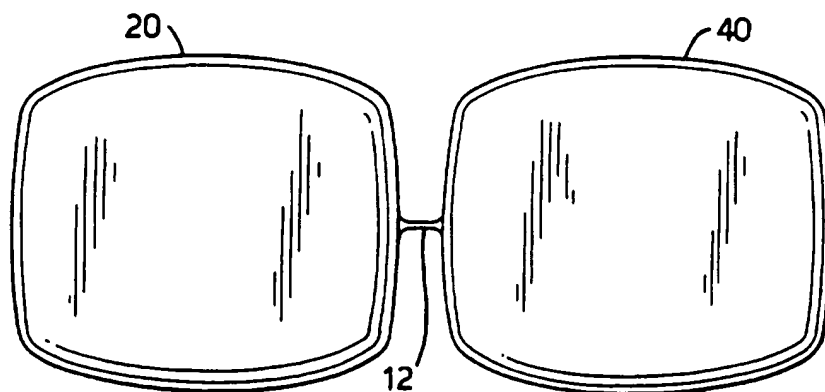


Fig.3.





## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 95/02472

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 B65D1/04 B65D69/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 6 B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE,U,93 02 295 (KTI KUNSTSTOFFTECHNIK) 15 April 1993 see page 5, line 9 - page 7, line 1; figures 4-6 ---	1-10
X	DE,U,93 16 583 (HOMBERG) 14 April 1994 see the whole document ---	1,2,4-10
X	US,A,4 196 808 (PARDO) 8 April 1980 see the whole document ---	1,2,4-10
X	AU,A,561 374 (RUIZ) 9 May 1985 see the whole document ---	1,2,4-10
X	EP,A,0 258 885 (FOLKMAR) 9 March 1988  see column 5, line 33 - column 8, line 15; figures 1-6 -----	1,4-6, 8-10

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

25 January 1996

Date of mailing of the international search report

- 9. 02. 96

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-3016

Authorized officer

Martens, L

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 95/02472

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE-U-9302295	15-04-93	NONE	
DE-U-9316583	14-04-94	NONE	
US-A-4196808	08-04-80	NONE	
AU-A-561374	07-05-87	AU-B- 3469784	09-05-85
EP-A-258885	09-03-88	DE-A- 3632188	10-03-88
		DE-A- 3724998	17-03-88
		JP-A- 63079613	09-04-88
		US-A- 4802608	07-02-89